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Osamu Shimomura

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NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER

AURORA, REENA

ART UNIT

PAPER NUMBER

2862

DATE MAILED: 08/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

This communication is in response to amendment received on 05/23/06.

Claims 2 – 6, 13 and 19 – 20 are presented for examination.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2 – 6, 12 and 19 - 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Grancoin (3,309,642).

As to claim 2, Grancoin discloses a Hall effect rotating device comprising: a magnetic flux generating means (11, 11a, fig. 3) including a magnet for generating magnetic fluxes; a magnetism sensing element (3) responsive to the magnetic fluxes passing therethrough to detect a relative turning angle between the magnetic flux generating means (11, 11a) and the magnetism sensing element (3, air gap with Hall sensor) from the magnetic fluxes passing therethrough; and a magnetic flux reducing means (2) for passing therethrough a part of the magnetic fluxes generated by the magnet (11, 11a) thereby to reduce the magnetic fluxes passing through the magnetism sensing element only when the relative turning angle between the magnetic flux generating means and the magnetism sensing element is within a predetermined range of turning angles, wherein at least one of said- magnetic flux reducing means (2) and

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said magnetic flux generating means (11) is rotatable relative to the other of said magnetic flux reducing means (2) and said magnetic flux generating means (11), and wherein the magnetic flux reducing means (2) includes an external magnetic member made of magnetic material to pass the part of the magnetic fluxes therethrough (col. 1, line 34 – line 57).

As to claims 3 - 4, Grancoin discloses that the magnetic flux generating means (11, 11a) includes two generally semi-cylindrical yokes made of magnetic material and sandwiching the magnet between respective circumferential ends; and the yokes have an inside shape of an ellipse (Note fig. 3).

As to claims 5 and 6, Grancoin discloses that the external magnetic member (2) is provided radially outside the magnetic flux generating means (11, 11a).

As to claim 13, Grancoin discloses a Hall effect rotating device comprising: a magnetic flux generating means (11, 11a, fig. 3) including a magnet for generating magnetic fluxes; a magnetism sensing element (3, air gap with Hall sensor) responsive to the magnetic fluxes passing therethrough to detect a relative turning angle between the magnetic flux generating means (11, 11a) and the magnetism sensing element (3) from the magnetic fluxes passing therethrough; and a magnetic flux reducing means (2) for passing therethrough a part of the magnetic fluxes generated by the magnet (11, 11a) thereby to reduce the magnetic fluxes passing through the magnetism sensing element (3) only when the relative turning angle between the magnetic flux generating means (11, 11a) and the magnetism sensing element (3) is within a predetermined range of turning angles, wherein the magnetic flux reducing means (2) includes an

external magnetic member made of magnetic material to pass the part of the magnetic fluxes therethrough, wherein the magnetic flux generating means (11, 11a) includes two generally semi- cylindrical yokes made of magnetic material and sandwiching the magnet between respective circumferential ends; and wherein the yokes have an inside shape of an ellipse (col. 1, line 34 – line 57).

As to claims 19 - 20, Grancoin discloses a Hall effect rotating device comprising: a magnetic flux generator (11, 11a) including a magnet for generating magnetic fluxes; a magnetism sensing element (3) responsive to the magnetic fluxes passing therethrough to detect a relative turning angle between the magnetic flux generator (11, 11a) and the magnetism sensing element (3) from the magnetic fluxes passing therethrough; and a magnetic flux reducer (2) for passing therethrough a part of the magnetic fluxes generated by the magnet thereby to reduce the magnetic fluxes passing through the magnetism sensing element (3) only when the relative turning angle between the magnetic flux generator (11, 11a) and the magnetism sensing element (3) is within a predetermined range of turning angles, wherein at least one of said magnetic flux- reducer (2) and said magnetic flux generator (11, 11a) is rotatable relative to the other of said magnetic flux reducer (2) and said magnetic flux generator (11, 11a), and wherein the magnetic flux reducer (2) includes an external magnetic member made of magnetic material to pass the part of the magnetic fluxes therethrough (col. 1, line 34 – line 57).

Response to Arguments

Applicant's arguments with respect to claims 2 – 6, 13 and 19 – 20 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reena Aurora whose telephone number is 571-272-2263. The examiner can normally be reached on Monday - Friday, 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, E. Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Reena Aurora